



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,249	03/12/2004	Jonathan G. Gilbertson	20030057.ORI	8205

23595 7590 06/29/2005  
NIKOLAI & MERSEREAU, P.A.  
900 SECOND AVENUE SOUTH  
SUITE 820  
MINNEAPOLIS, MN 55402

EXAMINER

PARKER, FREDERICK JOHN

ART UNIT	PAPER NUMBER
----------	--------------

1762

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/799,249

Applicant(s)

GILBERTSON ET AL.

Examiner

Frederick J. Parker

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13 is/are rejected.
- 7) ☒ Claim(s) 12 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/28/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

Art Unit: 1762

## DETAILED ACTION

### *Information Disclosure Request*

The Examiner respectfully requests submission of any printed matter, such as hobby magazines, containing relevant information to the application of solid lubricants to paint ball and related guns.

### *Specification*

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: (1) there does not appear to be support for “uhmw polyethylene” of claim 5 in the specification (2) there does not appear to be support for the coating methods of claims 13-14 in the specification, except dipping.
2. The disclosure is objected to because of the following informalities: (1) the meaning of “lubricating” and “lubricants” as presented on page 5, 18 to page 6, 9 is contrary to the conventional use of the terms because it includes materials that “increase chemical resistance, reduce wear, increase hardness”. The meaning of “lubricating” and “lubricants” as presented is repugnant to conventional meaning as would be understood by one skilled in the art, namely reducing friction/ increasing lubricity. Repugnant portions should be deleted. Further it is unclear how structural metals such as Ni, Ag, steel, Zn,Co, etc and non-metals (phosphorus, sulfur, ceramics, etc) are lubricants. (2) page 11, line 3, “M<sub>2</sub>S<sub>2</sub>” is a typo. Appropriate correction is required.

Art Unit: 1762

***Claim Objections***

3. Claims 2,3,5,13 are objected to because of the following informalities: 1) claim 2, 1 “stop” is a typo 2) claim 3, 1, “items of the” is superfluous and inconsistent with the wording of claim 1. 3) claim 5, abbreviations should be capitalized. 4) claim 13, word/s are missing after “is” on line 1. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3,6,8,13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 3 is vague and indefinite because it is unclear what “class” contains “metals, chemicals....and polymers”, the use of proper Markush language is suggested; the claim is vague and indefinite because “chemicals” is inclusive of metals, ceramics, elements, etc so it is unclear how they are differentiated; it is unclear what is meant by the limitation “excluding lubricous properties” in context, especially since graphite is inherently lubricious; the claim is also vague and indefinite because it is unclear how chemicals (e.g. acids, peroxides, etc), metals (Co, Ni, etc), ceramics (alumina, zirconia, etc), elements (thorium, calcium, argon, etc), etc can be coated as solid lubricants; the claim is vague and indefinite because it is unclear what part coating on line 2 plays in the process of claim 1, e.g. is it a pretreatment? the means to apply solid lubricant? etc.

Art Unit: 1762

- Claim 6 is vague and indefinite because the relative and undefined term "thin" does not convey intended film thickness.
- Claim 11; "mating surface" lacks antecedent basis; the meaning of "such" renders the claim vague and indefinite because it appears to permit mating surfaces other than those claimed so the intended scope of the limitation is uncertain.
- Claim 8; "permanent lubricant" lacks antecedent basis; it is unclear how Ni is lubricous.
- Claim 13 is vague and indefinite because the generic process term coating is inclusive of wicking, wiping, brushing, etc so it is unclear how they are intended to be differentiated.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1,3,5,6,10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Scott US 6233928.

Scott teaches a paint ball gun/ marker in which a depressible sliding trigger 14 ("exposed to relative motion" with other parts of the gun) is coated with a TEFLON-like polymer inherently possessing lubricous properties (as recognized by Applicants Spec page 8, 6-7). The piston body 80 also includes polymeric seal 84 (mating surface). The references therefore meets the claim limitations as read in view of the specification.

*Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 2,7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott.

Scott is cited for the same reasons previously discussed, which are incorporated herein. Per claim 2, it is the Examiner's position that hardening metals at high temperatures to improve mechanical properties is a notoriously common and conventional step in metals processing which does not patentably distinguish over the prior art. As to claim 7, cleaning surfaces to remove contaminants, grease, etc and roughening surfaces to provide means for a greater adhesion of subsequently applied coatings are notoriously common and conventional steps in the coating arts which would have been apparent to one of ordinary skill and which does not patentably distinguish over the prior art.

Art Unit: 1762

11. Claims 3-4,8-9 are rejected under 35 USC 112/2<sup>nd</sup> and are not rejected under prior art because the meaning of the limitations are entirely unclear. Claim 11 may distinguish over the prior art, dependant upon clarification of issues brought up by the Examiner in paragraph 2; it is also rejected under 35 USC 112/ 2nd. Claims 12-14 appear to distinguish over the prior art which does not teach nor suggest applying an aerosol / solid lubricant (read by Examiner to be in particulate solid form) to a paint ball marker by the means cited; claim 13 is rejected under 35 USC 112/ 2nd. Claims 12 and 14 are therefore objected to for depending on a rejected base claim. Applicants are reminded that support for all substantial amendments be recited on the record in the Remarks portions of Applicants' response to this Office Action.

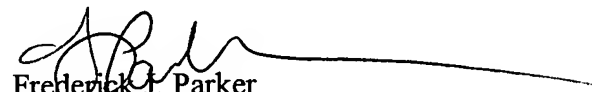
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Website [www.spudnuk1/rebel](http://www.spudnuk1/rebel) shows progression of use of oil lubricant to solid lubricant (10/23/04). Website [www.pbreview.com](http://www.pbreview.com) dated 10/20 & 11/15/04 cites solid lubricant w/ Nylon.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571/272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Frederick J. Parker  
Primary Examiner  
Art Unit 1762

fjp